

REMARKS

The Office Action dated August 4, 2009, has been received and carefully noted. The following remarks, are submitted as a full and complete response thereto.

By this Response, claims 33 and 35-37 have been amended to more particularly point out and distinctly claim the subject matter of the present invention. No new matter has been added. Claims 1-6, 11-23, and 26-37 are pending in the application, of which claims 1, 6, 11, 13, 18, 30-33, and 35-37 are independent. Applicants respectfully submit claims 1-6, 11-23, and 26-37 for consideration.

In view of the above amendments and the following remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending rejections to the claims for the reasons discussed below.

Allowable Subject Matter

Claims 5, 12, 21-22, and 26 were indicated as containing allowable subject matter, but were objected to as being dependent upon a rejected base claim. Applicants thank the Examiner for this indication of allowable subject matter. Applicants respectfully submit that claims 1-4, 6, 11, 13-20, 23, and 27-37 are also allowable, as discussed below. It is, thus, respectfully requested that the objection to claims 5, 12, 21-22, and 26 be withdrawn.

Reconsideration and allowance of claims 5, 12, 21-22, and 26 are, thus, respectfully requested.

Specification Objections

The specification was objected to as allegedly failing to provide proper antecedent basis for the claimed subject matter, specifically, a “computer program embodied on a computer medium,” as recited in claims 33-34 and similarly recited in claim 36. Applicants respectfully traverse this objection.

Under 37 C.F.R. 1.75(d)(1), the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable. Here, the specification provides clear support for the phrase “computer program embodied on a computer medium.” Support for this phrase may be found in the specification, for example, at paragraphs 82, 86, 92, 98-99, which disclose software and memory. One of ordinary skill in the art would recognize that the software and the memory may correspond to the “computer program” and the “computer medium,” respectively, of the present invention. Also, one of ordinary skill in the art would recognize that the software is typically embodied on the memory. Thus, one of ordinary skill in the art would conclude that the specification provides clear support for the phrase “computer program embodied on a computer medium” so that the meaning of this phrase may be ascertainable. Accordingly, Applicants respectfully submit that this objection is clearly improper, and respectfully request that this objection be withdrawn.

The specification was further objected to as allegedly failing to provide proper antecedent basis for the claimed subject matter “the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously,” as recited

in independent claim 1 and similarly recited in the other independent claims. Applicants respectfully traverse this objection.

The specification provides clear support for the phrase “the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously.” Support for this phrase may be found in the specification, for example, at Figure 1 and paragraphs 23-31, which teach the subscriber terminal 104 that already is in connection with the infrastructure 102, requesting and establishing a radio link 152 between the sub-terminal 114 and the infrastructure 102. As shown in Figure 5, after the radio link 152 has been established, data 522 may be communicated directly from the infrastructure 502 to the sub-terminal 506, in addition to being communicated directly from the infrastructure 502 to the subscriber terminal 504 (*see* Specification at paragraphs 109-110). In other words, the subscriber terminal 504 and the sub-terminal 506 are in connection with the infrastructure 502 simultaneously. Thus, the specification provides clear support for the phrase “the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously” so that the meaning of this phrase may be ascertainable. Accordingly, Applicants respectfully submit that this objection is clearly improper, and respectfully request that this objection be withdrawn.

Claim Rejection - 35 U.S.C. 112

Claims 33 and 35-37 were rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the

subject matter which Applicants regard as the invention. Specifically, the Office Action asserted that the limitation “being in connection with the infrastructure simultaneously with the at least one sub-terminal,” as recited in claims 33 and 35-36 and as similarly recited in claim 37, does not describe which device or element is in connection with the infrastructure simultaneously with the at least one sub-terminal. Applicants have amended these claims to recite “the subscriber terminal being” or “a sub-terminal being,” to describe the device that is in connection with the infrastructure simultaneously with the at least one sub-terminal or the subscriber terminal. Accordingly, Applicants respectfully submit that this rejection is moot in view of the claim amendments, and respectfully request that this rejection be withdrawn.

Furthermore, since the features “the subscriber terminal being” or “a sub-terminal being” were previously and similarly recited in independent claims 1, 6, 11, 13, 18, and 30-32, Applicants respectfully submit that the amendments to independent claims 33 and 35-37 do not change the scope of the pending claims. Therefore, Applicants respectfully request that these amendments be entered without further search and/or consideration.

Reconsideration and allowance of claims 33 and 35-37 are, thus, respectfully requested.

Claim Rejection - 35 U.S.C. 103

Claims 1-4, 6, 11, 13-20, 23, and 27-37 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Ratert (U.S. Patent Appln. Pub. No. 2004/0142684) in

view of Chen (U.S. Patent No. 7,010,268). The Office Action took the position that the combination of Ratert and Chen discloses or suggests all of the features of these claims. Applicants respectfully traverse this rejection as legally improper.

Ratert cannot be cited against the present application to show obviousness. The present application claims priority to Finnish Patent Appln. No. 20040392, filed March 12, 2004. The only possible section of 35 U.S.C. 102 under which Ratert could be applicable as prior art for obviousness is 35 U.S.C. 102(e). However, 35 U.S.C. 103(c) prohibits the USPTO from citing (for the purposes of establishing obviousness) a reference that is only available as prior art via 35 U.S.C. 102(e), and which was under a mutual obligation of assignment to the same entity at the time the invention was made. Ratert was either already assigned to or under an obligation of assignment to Nokia Corporation at the time the invention was made, as evidenced by the assignment recorded at Reel 015102, Frame 0798, on March 19, 2004. The assignment of the present application to Nokia Corporation was recorded at Reel 015744, Frame 0249, on August 30, 2004. Thus, Ratert cannot be used to show obviousness of the claims of the present application. Accordingly, Applicants respectfully submit that this rejection is clearly improper, and respectfully requests that this rejection be withdrawn.

Nevertheless, for the Examiner's convenience, the following discussion of the cited references is provided.

Independent claim 1, upon which claims 2-5 and 22-23 depend, is directed to a method including connecting a subscriber terminal of a wireless telecommunications

system to an infrastructure of the wireless telecommunications system over a wireless interface. The subscriber terminal holds a subscriber identity in the wireless telecommunications system. The method also includes connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. A radio link is requested from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and signaling parameters are generated for controlling the radio link. At least one of the signaling parameters is communicated between the at least one sub-terminal and the infrastructure, the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously.

Independent claim 6 is directed to a system including a subscriber terminal and at least one sub-terminal. The subscriber terminal includes a connecting unit configured to connect the subscriber terminal to a infrastructure of a wireless telecommunications system, and a subscriber identity unit configured to hold a subscriber identity of the subscriber terminal in the wireless telecommunications system. The at least one sub-terminal uses the subscriber identity of the subscriber terminal and includes a receiving unit configured to provide a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters. The subscriber terminal includes a requesting unit operationally connected to the connecting unit, configured to request the radio link. The system includes a signaling unit operationally connected to the connecting unit, configured to communicate at least one of

the signaling parameters between the subscriber terminal and the infrastructure. The system includes a proximity signaling unit operationally connected to the signaling unit, configured to communicate the at least one of the signaling parameters between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface. The subscriber terminal and the at least one sub-terminal are connected to the infrastructure simultaneously.

Independent claim 11, upon which claims 12 and 26-27 depend, is directed to an apparatus including a connecting unit configured to connect the apparatus to an infrastructure of a wireless telecommunications system. The apparatus also includes a subscriber identity unit configured to hold a subscriber identity of the apparatus in the wireless telecommunications system. A requesting unit operationally connected to the connecting unit, is configured to request a radio link directed from the infrastructure to at least one sub-terminal, the at least one sub-terminal using the subscriber identity of the apparatus, the radio link being controlled on the basis of signaling parameters. A proximity signaling unit is configured to communicate at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface. A signaling unit operationally connected to the connecting unit and the proximity signaling unit, is configured to communicate the at least one of the signaling parameters between the apparatus and the infrastructure. The apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal.

Independent claim 13, upon which claims 14-17 and 28 depend, is directed to an apparatus including a receiving unit configured to provide a radio link directed from an infrastructure of a wireless telecommunication system, to the apparatus. The apparatus is operationally connected to the infrastructure and holding a subscriber identity in the wireless telecommunications system. The apparatus uses the subscriber identity of a subscriber terminal, and the radio link is controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal. The apparatus also includes a proximity signaling unit configured to communicate at least one of the signaling parameters between the subscriber terminal and the apparatus over a proximity wireless interface. The apparatus is configured to be in connection with the infrastructure simultaneously with the subscriber terminal.

Independent claim 18, upon which claims 19-21 and 29 depend, is directed to an apparatus including an access control unit configured to control access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system. The subscriber terminal is operationally connected to the infrastructure and the access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal and the subscriber terminal holding the subscriber identity in the wireless telecommunications system. The at least one sub-terminal uses the subscriber identity of the subscriber terminal. The apparatus also includes a controlling unit operationally

connected to the access control unit, configured to control a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters. A signaling unit is configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal, the at least one of the signaling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

Independent claim 30 is directed to an apparatus including connecting means for connecting the apparatus to an infrastructure of a wireless telecommunications system, and subscriber identity means for holding a subscriber identity of the apparatus in the wireless telecommunications system. The apparatus also includes requesting means for requesting a radio link directed from the infrastructure to at least one sub-terminal, the at least one sub-terminal using the subscriber identity of the apparatus, the radio link being controlled on the basis of signaling parameters. Proximity signaling means are for communicating at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface. Signaling means are for communicating the at least one of the signaling parameters between the apparatus and the infrastructure. The apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal.

Independent claim 31 is directed to an apparatus including receiving means for providing a radio link directed from an infrastructure of a wireless telecommunication system, to the apparatus, the apparatus being operationally connected to the infrastructure

and holding a subscriber identity in the wireless telecommunications system. The apparatus uses the subscriber identity of a subscriber terminal, and the radio link is controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal. The apparatus also includes proximity signaling means for communicating at least one of the signaling parameters between the subscriber terminal and the apparatus over a proximity wireless interface. The apparatus is configured to be in connection with the infrastructure simultaneously with the subscriber terminal.

Independent claim 32 is directed to an apparatus including access control means for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system. The subscriber terminal is operationally connected to the infrastructure and the access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal and the subscriber terminal holding the subscriber identity in the wireless telecommunications system. The at least one sub-terminal uses the subscriber identity of the subscriber terminal. The apparatus also includes controlling means for controlling a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters. Signaling means are for communicating at least one of the signaling parameters between the infrastructure and the subscriber terminal, the at least

one of the signaling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

Independent claim 33, upon which claim 34 depends, is directed to a computer program embodied on a computer medium, for controlling a computer to perform a method. The method includes connecting a subscriber terminal of a wireless telecommunications system to an infrastructure of the wireless telecommunications system over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system. The method also includes connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. A radio link is requested from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and signaling parameters are generated for controlling the radio link. At least one of the signaling parameters is communicated between the at least one sub-terminal and the infrastructure via the subscriber terminal, and the subscriber terminal is in connection with the infrastructure simultaneously with the at least one sub-terminal.

Independent claim 35 is directed to a method including connecting a subscriber terminal to an infrastructure over a wireless interface, the subscriber terminal holding a subscriber identity. The method also includes connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. A radio link is requested, at the

subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and signaling parameters are received for controlling the radio link. At least one of the signaling parameters is communicated between the at least one sub-terminal and the infrastructure via the subscriber terminal, and the subscriber terminal is in connection with the infrastructure simultaneously with the at least one sub-terminal.

Independent claim 36 is directed to a computer program, embodied on a computer-readable medium, for controlling a processor to implement a method. The method includes connecting a subscriber terminal to an infrastructure over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system. The method also includes connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. A radio link is requested, at the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and signaling parameters are received for controlling the radio link. At least one of the signaling parameters is communicated between the at least one sub-terminal and the infrastructure via the subscriber terminal, and the subscriber terminal is in connection with the infrastructure simultaneously with the at least one sub-terminal.

Independent claim 37 is directed to a method including providing a radio link directed from an infrastructure of a wireless telecommunication system, holding a subscriber identity in the wireless telecommunications system, the subscriber identity being the identity of a subscriber terminal. The radio link is controlled on the basis of

signaling parameters communicated between the subscriber terminal and the infrastructure. The method also includes communicating at least one of the signaling parameters to the subscriber terminal over a proximity wireless interface, and a sub-terminal is in connection with the infrastructure simultaneously with the subscriber terminal.

Applicants respectfully submit that the combination of Ratert and Chen fails to disclose or suggest all of features of any of the presently pending claims.

Ratert describes a communication system including first and second communication devices capable of communicating with a telecommunications network. The first communication device includes identification information, and the second communication device is capable of remotely acquiring at least some of the identification information of the first communication device. The second communication device is further capable of acquiring connection parameters from the first communication device and applying the acquired parameters to effect a connection to the network (*see* Ratert at paragraph 8).

Chen describes a far end remote control method and system by a short message and Bluetooth function operation used to control output/input devices at a far end. The system mainly includes a cellular phone, controlling device and controlled devices. The method can expand a control range to all places in the world that the cellular phone is applicable (*see* Chen at Abstract).

Applicants respectfully submit that the combination of Ratert and Chen fails to disclose or suggest all of features of any of the presently pending claims. Specifically, the combination of Ratert and Chen does not disclose or suggest, at least, “requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal,” as recited in independent claim 1 and similarly recited in the other independent claims. The Office Action acknowledged that Ratert fails to disclose or suggest these features, and cited Chen to remedy the deficiencies of Ratert. In particular, the Office Action asserted that these features are taught in Chen at Figure 1 and column 2, lines 30-36 and 41-43, which describe a cellular phone 1 transmitting a short message control command to a controlling device 2 through a cellular phone net 4, to control an output/input device (*see* Ratert at column 2, line 45). The Office Action appears to assert that the phone 1, the device 2, and the net 4 of Chen correspond to the subscriber terminal, the sub-terminal, and the infrastructure, respectively, of the present invention.

However, Chen fails to disclose or suggest, at least, “requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal,” as recited in independent claim 1 and similarly recited in the other independent claims. Specifically, Chen does not disclose or suggest the phone 1 requesting a radio link to be directed from the net 4 to the device 2. As described above, Chen refers to the phone 1 sending merely the short message through the net 4 to the device 2 (*see* Chen at Figure 1 and column 2, lines 30-36). Chen fails to disclose or

suggest the short message including any request to direct a radio link from the net 4 to the device 2, and does not even disclose or suggest whether a connection from the net 4 to the device 2 is already established when the net 4 receives the short message.

Also, contrary to the apparent assertions of the Office Action, the device 2 of Chen cannot correspond to the sub-terminal of the present invention, which defines the sub-terminal being connected to the subscriber terminal over a proximity wireless interface and using a subscriber identity of the subscriber terminal. Chen does not disclose or suggest the device 2 including either of these features with respect to the sub-terminal of the present invention. In contrast, the device 2 of Chen is connected to the phone 1 via the cellular phone net 4 (*see* Chen at Figure 1 and column 2, lines 30-36), which is not a proximity interface.

In addition, Chen describes a “**far end** remote control method” (emphasis added, *see* Chen at Abstract), instead of Ratert’s method of acquiring subscriber identification module (SIM) information via a low power radio frequency link, a Bluetooth connection, and/or a direct wire connection (*see* Ratert at paragraphs 20 and 25). Thus, contrary to the assertions of the Office Action, the method and the devices 1-2 in Chen would not motivate one of ordinary skill in the art to modify the method and the devices in Ratert to include the features of the present invention since the method and the devices in these cited references are vastly different. Chen describes the devices 1-2 connected via only a cellular network, while Ratert describes the devices connected within close proximity of each other and acquiring SIM information. Accordingly, the combination of Ratert and

Chen fails to disclose or suggest, at least, “requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal” as recited in independent claim 1 and similarly recited in the other independent claims.

Furthermore, the combination of Ratert and Chen fails to disclose or suggest, at least, “generating signaling parameters for controlling the radio link ... [and] communicating at least one of the signaling parameters between the at least one sub-terminal and the infrastructure,” as recited in independent claim 1 and similarly recited in the other independent claims. The Office Action acknowledged that Ratert fails to disclose or suggest these features, and cited Chen to remedy the deficiencies of Ratert.

However, Chen fails to disclose or suggest, at least, “generating signaling parameters for controlling the radio link ... [and] communicating at least one of the signaling parameters between the at least one sub-terminal and the infrastructure,” as recited in independent claim 1 and similarly recited in the other independent claims. Specifically, Chen does not disclose or suggest generating and communicating signaling parameters for controlling a radio link between the infrastructure 4 and the device 2. As described above, Chen refers to the phone 1 sending merely the short message through the net 4 to the device 2, to control the input/output device (*see* Chen at Figure 1 and column 2, lines 30-36). Chen fails to disclose or suggest the short message including signaling parameters for controlling a radio link between the infrastructure 4 and the

device 2. Chen does not even disclose or suggest how a connection between the infrastructure 4 and the device 2 is controlled.

In addition, as mentioned above, Chen fails to disclose or suggest the sub-terminal of the present invention, and cannot modify Ratert since Chen and Ratert include different types of methods and devices. Accordingly, the combination of Ratert and Chen does not disclose or suggest, at least, “generating signaling parameters for controlling the radio link ... [and] communicating at least one of the signaling parameters between the at least one sub-terminal and the infrastructure,” as recited in independent claim 1 and similarly recited in the other independent claims.

Furthermore, the combination of Ratert and Chen fails to disclose or suggest, at least, “the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously,” as recited in independent claim 1 and similarly recited in the other independent claims. The Office Action acknowledged that Ratert fails to disclose or suggest these features, and cited Chen to remedy the deficiencies of Ratert.

However, Chen fails to disclose or suggest, at least, “the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously,” as recited in independent claim 1 and similarly recited in the other independent claims. Specifically, Chen does not disclose or suggest that the phone 1 and the device 2 being in connection with the net 4 simultaneously. As described above, Chen refers to only the phone 1 sending the short message through the net 4 to the device 2, to control the input/output device (*see* Chen at Figure 1 and column 2, lines 30-36). There is no

indication in Chen whether the short message is sent instantaneously through the system since the phone 1 and the device 2 are in connection with the net 4 simultaneously, or whether the short message is sent from the phone 1 to the net 4 and is then delayed since there is no connection between the net 4 and the device 2, for instance.

In addition, as mentioned above, Chen fails to disclose or suggest the sub-terminal of the present invention, and cannot modify Ratert since Chen and Ratert include different types of methods and devices. Accordingly, the combination of Ratert and Chen does not disclose or suggest, at least, “the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously,” as recited in independent claim 1 and similarly recited in the other independent claims.

For at least the reasons discussed above, Applicants respectfully submit that the combination of Ratert and Chen fails to disclose or suggest all of the features of independent claims 1, 6, 11, 13, 18, 30-33, and 35-37. Accordingly, Applicants respectfully request that the rejection of independent claims 1, 6, 11, 13, 18, 30-33, and 35-37 be withdrawn.

Claims 2-4, 14-17, 19-20, 23, 27-29, and 34 depend from, and further limit, independent claims 1, 11, 13, 18, and 33. Thus, each of claims 2-4, 14-17, 19-20, 23, 27-29, and 34 recites subject matter that is neither disclosed nor suggested in the combination of Ratert and Chen. It is, therefore, respectfully requested that the rejections of claims 2-4, 14-17, 19-20, 23, 27-29, and 34 be withdrawn.

Reconsideration and allowance of claims 1-4, 6, 11, 13-20, 23, and 27-37 are, thus, respectfully requested.

Conclusion

For the reasons set forth above, it is respectfully submitted that each of claims 1-6, 11-23, and 26-37 recites subject matter that is neither disclosed nor suggested in the cited references. It is, therefore, respectfully requested that all of claims 1-6, 11-23, and 26-37 be allowed, and that this application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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